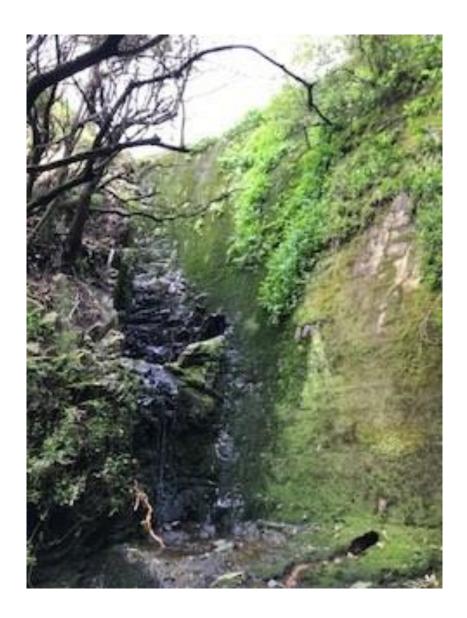
Historic Heritage Evaluation

Tyers Stream Dam, Tyers Stream Reserve, Ngauranga



February 2023

| | Historic Heritage Evaluation |
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| Prepared by | NZ Heritage Properties on behalf of Wellington City Council |
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Executive Summary

Tyers Stream Dam was nominated for addition to the Wellington District Plan Schedule of Historic Heritage Buildings by a member of public in August 2020. The evaluation of the dam's heritage values shows it to be a significant example of a privately built and operated dam for commercial purposes. It possesses **historic**, **physical** and **social** significance, relating in particular to its rarity, integrity and representativeness.

Alfred Tyer opened a tannery and fellmongery in 1865/1866 on the banks of a stream which would come to bear his name. He altered the stream's channel to better direct a steady source of water to his works which were dependent on water. Water was also vital to the Wellington Meat Preserving and Refrigeration Company which sat adjacent to Tyer's tannery. It is likely that an initial dam was erected to improve a steady supply of water, perhaps in 1884 or in 1894. The date of construction is unclear, but a dam was on site in January 1906 when Tyer sold his successful business. The site was soon purchased, with water rights, by W. Dimmock and Co. ham and bacon curers. Between late 1906 and 1907, W. Dimock and Co. built a new freezing and refrigeration plant on site. In July 1907 W.O. Beere, Civil engineer, advertised for tenders for the construction of a reinforced concrete reservoir. In late 1907 the Company referred to their newly-erected dam which was likely part of the reservoir tender. This concrete arch dam remains today and was among the first dams in the Wellington region to transition from nineteenth century timber, earth and masonry dams to mass concrete. Today, it is a rare example of a commercially built and operated dam which is contained within a public recreation reserve.

It is recommended that the Tyers Stream Dam is added to the Schedule of Historic Heritage Buildings. The extent should be based on the existing land parcel. The dam has historic significance for its connection with successful firms whose products were known nation-wide. It has physical values, in particular relating to its technological values as an early twentieth century concrete arch dam and near the forefront of such technology. Known as Tyers Stream Dam, it memorialises Alfred Tyer and his tannery, and is a testament to the early industries drawn to the Ngauranga Gorge. Increasingly rare and retaining a high degree of integrity, Tyers Stream Dam also has significant social values for its association with early tanneries and meat processing plants within the Ngauranga Gorge.

Summary Statement of Significance

Tyers Stream Dam is a significant example of an early turn of the century concrete arch dam. The following summarises the fundamental values of the place identified against the heritage significance criteria:



Tyers Stream Dam has historic values and is associated with important historical themes including Māori migration and settlement. early colonists, and early commercial ventures. The dam is associated with the themes of response to topography and water supply infrastructure. The Dam is associated with Alfred Tyer and W. Dimmock and Co Ltd whose products were known throughout New Zealand and has social value for its association with early tanneries and meat processing plants that came to dominate the Ngauranga Gorge. The dam's physical values are archaeological, given the dam replaced earlier dam-related infrastructure: remnants of which appear in the stream. The 1907 Dam has architectural and technical value as a concrete arched dam built in the early twentieth century, and group value as an example of small commercial dams, particularly those built in Ngauranga. The dam appears unmodified and has a high degree of integrity. Tyers Stream Dam has recognition value to its local communities as part of the Tyers Stream recreational reserve. The dam has rarity and representative value as one of a diminishing group of small nineteenth/early twentieth century commercial dams.

Purpose

The purpose of this document is to evaluate Tyers Stream Dam located in Tyers Stream reserve, Ngauranga, against Wellington City Council's criteria for inclusion on the District Plan Schedule of Historic Heritage Buildings.

The document has been prepared by New Zealand Heritage Properties for the Wellington City Council. It is intended solely for use by Wellington City Council in accordance with the agreed scope of work.

Scope

This assessment is a desktop study and is based on documentary sources and images. No site visit was undertaken.

Values are considered against Wellington City Council and Greater Wellington Regional Council criteria for inclusion on the District Plan Heritage Schedule.

As with any heritage assessment, there were some constraints experienced in the preparation of this report. The assessment was particular constrained by the lack of images, past and present. There were also no archives and very few reference to the small commercial dam. However, sufficient information was available on which the assess the structure. The chronology of the site was pieced together from sources including local historical resources, Wellington City Council archives and newspapers.



Newspaper sources were essential to understanding the history of the buildings. It should be noted that the Optical Character Recognition (OCR) software, which converts these sources into digitised word searchable text, creates some errors in translation. This limits a researcher's ability to accurately identify all contemporary information.

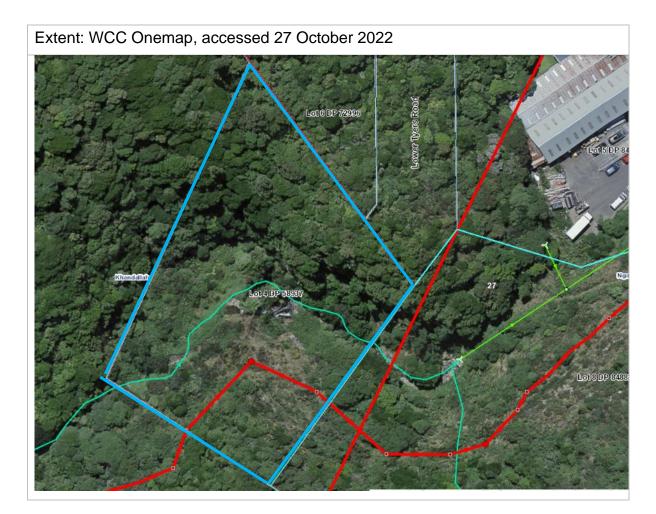


Heritage Inventory Report

| Site Detail | |
|--|--|
| Site address or address(es) and/or location | Tyers Stream Reserve, 36 Tyers Road, Ngauranga |
| Property Name | Tyers Stream Dam |
| Other names | Tyers Dam |
| Legal Description(s) and Record of Title identifier(s), Deeds register and/or Gazette notice information | Lot 4 DP 58937 (WN39C/276), Recreation Reserve, Wellington Land District |
| NZTM grid reference | 1751389, 5432554 |
| District Plan Reference Number | |
| Sites of significance to Māori | Tyers Stream is part of the Waitohi Catchment and is a line of significance to Māori in the proposed District Plan |
| WCC Heritage Area | None |
| HNZPT listed | Not listed |
| HNZPT category | None |
| Archaeological site (Heritage New Zealand Pouhere Taonga Act 2014, Section 6) | Potential –evidence indicates construction/occupation pre-1900 |
| New Zealand Archaeological Association (NZAA) site record number(s) | |
| Constructed | 1907 |
| Significant alterations or additions | Nineteenth century infrastructure replaced by 1907 dam |
| Architect | W.O. Beere |
| Builder | |
| Former uses | Utilities - Reservoir/ Dam Utilities - Water - other Māori - Mahinga kai - food, forest and mineral resource site |
| Current uses | Utilities - Reservoir/ Dam |



| | Utilities – Water - other |
|---|---------------------------|
| Earthquake-prone Building Status at the date of assessment. | |



Historical Summary

This section provides the results of documentary research into the historical background of the Tyers Stream Dam, Ngauranga. This research provides context and informs our understanding of the heritage values of the structure.

Land history

Wellington's nearly circular harbour (about 10 kilometres in diameter) began as a shallow basin between two tilted land blocks. Repeated uplifting along the Wellington Fault raised the block on the western side, creating a cliff from Thorndon to the Hutt Valley. The block to the east tilted down towards the fault, creating a depression that later filled with water. Matiu (Somes Island) and Mākaro (Ward



Island) are the exposed peaks of a submerged ridge running parallel with the extensive ridges of Miramar Peninsula and Hataitai.

The area which became Wellington, Te Whanganui-a-Tara (or Port Nicholson as the New Zealand Company called it) had been occupied for centuries by various Māori groups (Waitangi Tribunal Report, 2003). Two tribes of Ngāi Tara (in the Wellington area from c1405-1650) and Ngāti Ira (in the Wellington area until 1829) amalgamated and became known as Ngāti Ira. Ngāti Ira were the inhabitants of Te Whanganui-a-Tara and its environs including Porirua and the area up to the Kāpiti Coast (Murray, 2014). The principal chief of Ngāti Ira in the late 1810s, Whanake and his son Te Kekerengu both lived on the west coast of Wellington near Porirua Harbour.

Incoming tribes from far to the north of the Wellington area began to push out Ngāti Ira who faced consistent pressure as an influx of people continued from western Waikato and Taranaki (Waitangi Tribunal Report, 2003). Ngāpuhi, Ngāti Whatua, and Ngāti Toa migration, combined with the occasional war party, eventually drove the Ngāti Ira almost completely out of the area (Murray, 2014). Ngāti Toa and its allies gained ascendency over the Kāpiti Coast in 1824, although some Ngāti Ira continued to live at Porirua (Murray, 2014).

By the 1830s Ngāti Mutunga occupied lands at Ngā Ūranga (Ngauranga), which may be broadly translated as "the landing place (for canoes)". In 1835 Ngāti Mutunga left for the Chatham Islands and gave their lands to Pito-one and his son Te Manihera te Toru of Te Ati Awa. Te Wharepouri, a high ranking chief of Ngāti Te Whiti and Ngati Tawhirikura (sub-tribes of Te Āti Awa), learned his cousin Manihera te Toru had received this land from their mutual Mutunga relations. He brought around 300 people to settle at Ngauranga (National Library, 2022; Wellington City Council, 2022).

Te Wharepōuri was one of the high-ranking chiefs that the New Zealand Company opened 'negotiations' with for the purchase of Port Niocholson (AJHRs, 1929). The Deed of Purchase was signed in September 1839. Wakefield paid £30 for Ngā Ūranga (AJHRs, 1929). By the time of Te Wharepōuri's death in 1842, Ngā Ūranga was occupied by 48 people (Wellington City Council, 2022).

Ngā Ūranga people continued to cultivate lands along the western harbour where, at Wharepouri's special request, the New Zealand Company made Sections 5 and 6 Native Reserves. In 1847 Ngā Ūranga people insisted on retaining areas they had in cultivation around the kainga: about 115 acres on Section 6 and 110 acres of land on Sections 7, 8 and 9, Block XI Belmont SD. On 4 October 1847, a deed established these areas as the Ngahauranga Native Reserve (AJHRs, 1929; Wellington City Council, 2022).



In 1850 H. Tracey Kemp, the Native Secretary, reported on the Ngā Ūranga settlement:

Distant about two miles from Wellington, on the Hutt road, was the residence of the celebrated chief Wharepori [Te Wharepōuri]. It is now inhabited by a few of his followers. The fences of the Pa are down, but the huts are in tolerably good order. The natives here and at Pitone have always been on the most intimate terms of friendship, and they look even now to E. Puni [Te Puni] as the representative of their deceased parent Wharepori. They intermix very much with each other, and are allowed by E. Pune (Te Puni) to cultivate upon his land at the Hutt. They have also inter-married, but the population does not seem to be on the increase. They rear and sell a small quantity of poultry; and procure firewood and fish for the market. Native population 34. (Ward, 1928, p. 156).

Ngahauranga (Ngā Ūranga) reserve lands passed through the Native Land Court in August 1886. Taare Waitara became the single largest land owner. He held half of Section 6 with Mohi Puketapu and Matene Tauwhare; all of Section 7; and one-third of the Māori portion of sections 8 and 9 with Ruakere Moehau, Hohepine Love and Hone Taramena. After 1886 these Ngā Ūranga lands gradually suffered alienation by leases, successions and land sales. The Government also took land for public purposes, including defence purposes in 1886, and railway and road purposes in 1889 (Wellington City Council, 2022).

Between 1904 and 1906 the remaining portions of Sections 6 and 7 were sold for £5750 and £1371. By 1912 all of Hone Taramene, Ruakere Moehau, and Hohepine Love's remaining land holdings had passed to their descendants. In 1914, these sections were further partitioned, and more land sales followed. Today, no part of Ngā Ūranga remains as reserved land (Wellington City Council, 2022).

European Settlement at Ngauranga

The river mouth and gorge at Ngā Ūranga (sometimes written as Ngahauranga by early Pakeha settlers, and now more commonly known as Ngauranga), formed a natural crossroads. For this reason the area was an early selection in the New Zealand Company allotments. James Futter and his family were likely the first European settlers, leasing part of Sections 8 and 9 from Ngāti Tāwhirikura in the late 1840s. The family established and operated the White Horse Inn (Wellington City Council, 2022). A cart road up the heavily forested Ngauranga Gorge first opened in 1858; about half of its length passing through Māori reserves. In 1885 James Futter entered into a number of sub-leases with Taare Waitara and his co-owners for Sections 8 and 9.



Rather than developing as a small township, Ngauranga became dominated by animal processing industries. Abattoirs, meat plants, tanneries and fellmongers grouped at the base of the Ngauranga gully and stream from the 1860s. For example the Wellington Meat and Export Company negotiated a substantial 13-year lease of parts of Sections 8 and 9. This Company eventually purchased the land, extended its original site, and continued meat processing and preserving for over sixty years (Wellington City Council, 2022).

By the late 1890s Ngauranga was still dominated by animal processing commercial enterprises. In 1897 it was described as

...the second township on the way to the Hutt, [which] occupies the flat ground at the entrance of the Ngahauranga Gorge. The meat-freezing and preserving works, and the manure factories, tanneries, and fellmongering establishments occupy the banks of the stream for a considerable distance up the Gorge. There are no stores, and the frontages to the Hutt Road are occupied by two hotels. The school attendance is about thirty, and the room is also used for church purposes. (Cyclopedia Company Limited, 1897b).

Alfred Tyer's Tannery

The site on which Alfred Tyer's tannery would sit was part of Section 8, which was leased to William Wallace in 1853. It included a small stream, a tributary of the Ngauranga Stream. Wallace was married to Arapera Rongouaroa, daughter of Hemi Parai of Ngāti Haumia, Taranaki. Parai settled at Ngauranga, and for a time, Arapera and Wallace lived at Ngauranga in a house owned by Manihera Te Toru. Wallace established a coaching hotel, the Rainbow and Waterloo Inn, near the banks of the Ngauranga stream (Wellington City Libraries, Biography: Hemi Parai). Wallace held the 21 year lease until 1858 when he transferred it to William Smart Loxley, a merchant. Loxley transferred the lease to William Hickson, another merchant, in 1859 in repayment of a debt (Deeds Register Volume 4, Folio 164, Grouden & Capital Heritage Limited, 2016). In 1862 the remainder of the 21 year lease was transferred to Henry Death, a settler (Deeds Register Volume 8, Folio 186, Grouden & Capital Heritage Limited, 2016). In 1863 Death transferred his lease to William Clapham, a publican (Deeds Register Volume 8, Folio 188, Grouden & Capital Heritage Limited, 2016). In 1882 James and Henry Barber, butchers, leased 38 acres of Section 8, which became the site of their Wellington Meat Export Company. They shared Section 8 with several sub-leases including six acres which were sublet to "A. Tire", or more correctly Alfred Tyer (Deeds Register Volume 82, Folios 1-3, Grouden & Capital Heritage Limited, 2016).



It is not known exactly when Tyer began to lease land in the area but sources indicate that he was operating a fellmongery and tannery on part Section 8 from 1865/1866 (Cyclopedia Company Limited, 1897c; Ward, 1928, p. 279). Fellmongery was the process of cleaning and preparing animal hides, while tanning was the process of treating these hides to produce leather. In the nineteenth century, leather was a necessity for various important products from shoes, to tack for horses used in transportation and work, to belts that ran machinery in steam and water mills: "A tannery would appear early in the life of any town" (Murphy, 2019). Tanning required a ready supply of large amounts of water for the process of tanning, and still more water for disposing of the processed water which was now "fouled by dirt, decomposing flesh, and noxious chemicals" (Murphy, 2019). Historically, sourcing this water directly from nearby rivers was the only way of accessing a plentiful supply.

Tyer originally established his works lower down on the section but found a good stream (the Waitohi) which wound its way through Sections 7 and 8 joining the Ngauranga Stream from the south (A2291). The Waitohi Stream (aka Tyers Stream) was described as carrying "a large body of water" sufficient to supply the tannery and fellmongery (New Zealand Times, 1884). When Tyer first discovered the tannery site,

...it consisted of a patch of shingle, which formed a portion of the bed of the creek, and the slopes of the adjoining hills, which rise on both sides to a height of between two and three hundred-feet. (New Zealand Times, 1884).

He leased six acres on the far western edge of Section 8 bordering Section 7 and the reserve cultivations (Callow, 2009; Grouden & Capital Heritage Limited, 2016). Cutting away a portion of the slope, Tyer deposited the material on the lower ground to create a flat building site. He also formed a "proper channel" for the stream to direct it close to the proposed works (New Zealand Times, 1884). Although Tyer could have selected a building site "at less cost" elsewhere

...water of a certain quality is of as much importance in a tannery as in a brewery, and Mr Tyer having found that the stream referred to met all requirements in this respect chose its banks accordingly, and abandoned the works which he had started lower down on the Ngahauranga. (New Zealand Times, 1884).

Tyer first advertised his fellmongery as the Ngahauranga Boiling Down Establishment ("satisfactory returns guaranteed") (Wellington Independent, 1872). By 1875 he had renamed his company the Ngahauranga Steam Wool and Scouring Works (New Zealand Times, 1875b). By 1884 it was known as the Ngahauranga Tannery. A small complex of buildings was erected on Section 8 and a road ran from the edge of Section 7 through Section 8 to the main Ngauranga Gorge road.



It became known as Tyers Road (Callow, 2009; Grouden & Capital Heritage Limited, 2016).

In 1884 an extensive description of Tyler's Ngahauranga Tannery appeared in the newspapers of the day. By then he owned 67 acres of freehold land between the Ngauranga Stream to within a short distance of the railway line. The tannery was large invisible, tucked close to Section 7, but the extensive woolscouring works could be seen from the railway station (New Zealand Times, 1884). Tyer aimed to make his leather of such high quality that it would "command a market everywhere" (New Zealand Times, 1884). He seemed to have succeeded admirably as "his leather is now taken by all the leading houses in New Zealand, from Auckland to Dunedin" station (New Zealand Times, 1884). The tannery works were described as located at the end of a "good branch road" which led passed "a neat and substantial cottage, surrounded by an equally neat, garden and a plantation, which, on inquiry, is found to be occupied by the chief tanner" (New Zealand Times, 1884). The tannery site took in three acres:

The first block of buildings, situated on the right hand side of the road, comprised the office, sample-room, and warehouse, where the materials required for tanning as well as the finished product were stored. The bark storehouse has a storage capacity of 550 tons, and that quantity of bark is used per annum. Only the best South Australian black wattle bark is employed, that being the best tanning agent known. About 40 sacks of lime were consumed per week, and about 800 tons of coal per annum. Crossing the creek by means of a substantial bridge, the hide-house was reached... The bark storehouse has a storage capacity of 550 tons, and that quantity of bark is used per annum...Close to this are the soaks—-the first place to which the hides go. Next to these are the lime pits and bates. Altogether, this department comprises no less than 126 soak-pits, bates and tubs, all of which are required to be used before the article treated can be passed on to the next stage... The next building measures 63ft by 32ft, and comprises two floors. It is devoted to getting up the sole leather...The next building contains two more drums, also made by Messrs Robertson and Co., which are used for tanning the skins, four more being at present in course of construction. This, again, adjoins the large two-storey buildings used for dressing splits, calf, legging, Mamel, satin, tweed, kid, and all other kinds of grained and fancy leather.... Next in order comes another two storey building, 65ft by 34ft, the lower floor of which is need for dressing harness leather, the getting up of which has attained such a degree of perfection that several leading firms in the colony have endeavored to obtain a monopoly of the whole output An adjoining building 60ft by 40ft is



used for the purpose of storing oils, tallow, &c..and is fitted with five large boilers for making the dubbing for stuffing the leather. Opposite to this is another building used for salting hides. The engine-house Is conveniently situated near the centre of the premises, and contains two engines... The whole of the buildings and pits have been built of totara... The number of men employed at the tannery and fell-mongery is ninety-six, besides apprentices, and some of these have been in Mr Tyer's employ for a period of sixteen years (New Zealand Times, 1884).

Although the Ngahauranga Tannery was the largest in the colony at the time, Tyer was looking to expand the business:

...the steady increase of his trade bringing him a fair reward for the excellent and unsurpassed product which he has hitherto put on the market. As everything that knowledge, gained by long experience, combined with ample capital, can do, is done, this must lead to a business that will outrival anything of its kind in New Zealand (New Zealand Times, 1884).

Water

Tyer used water for numerous processes in the tannery. For example, the first step in leather making was to wash off the salt and other offal, and rehydrate the hides (Murphy, 2019; New Zealand Times, 1884). Hides were soaked in a solution of lime and water to loosen the hair and swell the fibre. Hair was then scraped off from the outside and any remains on the inside of the hides were removed. The hides were then delimed, by rinsing in water (Murphy, 2019). To carry out this process, Tyer used about 40 sacks of lime each week and had 126 soak-pits and tubs, and four 7 foot drums (New Zealand Times, 1884). Water was also essential to the "liquor" used to dye the leather, combining a tanning agent and water. At Tyer's tannery the liquor was renewed "by means of a centrifugal pump, capable of throwing up 400 gallons per minute, which lifts it to flumes running overhead round the sides of the yard" (New Zealand Times, 1884). From there the leather went to the spenders, or pits where the hides were hung vertically (Bampton Heritage and Visitor Centre, 2022; Proctor, 1914). Each of Tyer's spenders had "a copper steampipe for boiling the water...the spenders connecting with a substantial totara drain, made perfectly tight, 300 ft long, leading to the well, from whence the liquors are pumped by the large centrifugal pump" (New Zealand Times, 1884). The hot water was supplied by a "multitubular boiler" (New Zealand Times, 1884).

Tyer's Dam

While the use of water was pivotal in the entire process, the powerful flow of the stream itself was also important for extracting tannin from bark. Tannin was used to stabilise hides and turn them into leather. Tyer used "the best South Australian"



black wattle bark...that being the best tanning agent known" (New Zealand Times, 1884). In order to extract the maximum amount of tannin from bark, it had to be ground into small pieces and tanneries used the power of water to grind the bark and extract the tannin. To increase the power of a river, tanneries often built dams and created mill ponds. This increase in the vertical drop boosted the power of the water to grind bark (Murphy, 2019).

Certainly other business in the area were known to build small dams. For example, Charles Schultze's water powered flour mill, which opened in 1846. A waterwheel was driven by water obtained by damming the Kaiwharawhara Stream and forming a small lake (Wellington City Council, 2004). The dam lasted until 1942 when it was washed out by a flood. Another example was Oppenheimer and Co's "skin factory" that used the water that ran down the Ngauranga Gully. They built a small dam which was used in the preparation of hides and to flush out the creek three of four times a day (Evening Post, 1900b). Despite this, the "stench" was said to be "very high" (Evening Post, 1900a). Tyer's tannery was perhaps the largest of its kind in New Zealand, he employed the most modern of available machinery, and he was financially successful. Although no tenders or articles appear in the newspapers of the day concerning the dam and its construction, there is little doubt that a dam would have been erected on the stream.

Tyer's tannery was not the only business on Section 8 which was reliant on a ready supply of water. The Wellington Meat Preserving and Refrigerating Company, a successor of the Wellington Meat Export Company, sat adjacent to the tannery on Section 8. In 1884 the Company advertised tenders for the erection of a concrete dam and the laying of 430 yards of pipes (Evening Post, 1888). It is interesting to note that today Tyers Dam is approximately 430 yards (393 metres) from the original site of the Meat Company's works. A later article, however, refers to the Export Company drawing its water supply from artesian bores at Lower Hutt. The water was pumped to the Company's dam which was described as closer to Horokiwi (New Zealand Mail, 1906a; Times, 1915). The 1884 tender, then, may have referred to the construction of the dam further north, rather than the dam on Tyers Stream.

In 1894 part of the Ngahauranga Native Reserve on Section 7 was subdivided. Part of the subdivision created a small parcel of land about two acres in total, which included the location of the dam as it stands today (A724). A certificate of title was then granted to Alfred Tyer for this parcel of land, which then became part of the wider tannery site (WN89/41, WN 161/39). This small parcel was obviously a site of importance to the tannery and included part of the river bed and perhaps the dam. Conversely, Tyer may have been intending to construct the dam and arranged to own the parcel of land before doing so.



Recent photographs of Tyers Stream and the dam record part of a structure which is constructed of stone with a concrete overlay (see Appendix 3). This is likely a nineteenth century structure related to Tyer's utilisation of the stream. The concrete faced structure is similar to other small nineteenth century dams and reservoirs built in stonework with cement mortar and a concrete face wall for wave protection (Hawera & Normanby Star, 1896; Wanganui Chronicle, 1882). The inner fill could be earthen, such as the 1878 dam on the Wainuiomata River, or layers of stones like the Kaiwharawhara Stream Dam (Greater Wellington Regional Council, 2007). This type of dam construction was used throughout New Zealand in the nineteenth century. In 1876, for example, the Oamaru Municipal Council issued a tender for the Crown Mills dam which was to be protected by a concrete face wall (North Otago Times, 1876). The remaining stone and concrete faced structure, complete with pipe, near the dam is likely a nineteenth century construction dating to Tyer's occupation. It is likely that Tyers Dam was of a similar construction.

While the exact date of the dam's construction is unclear, records show that Tyers Stream Dam was extant in January 1906. That year Tyer closed his fellmongery and tannery business, while it was still a "prosperous concern" (Wairarapa Age, 1924)". He sold the land on which the tannery stood to the Banks Cooperative Meat Distributing Company Ltd (WN89/41). A January 1906 survey plan recorded the closure of a former un-surveyed road and the survey of a new road (now Tyers Road) and a right-of-way (now part of Lower Tyers Road). The plan was signed by Alfred Tyer and showed the location of Tyer's tannery. It also clearly marked the location of the dam across the stream on Part Section 7 at the foot of the gully (A2029).

W. Dimock and Company Ltd

Soon after Banks Meat Company purchased Tyer's holdings on Section 8, they sold three acres to W. Dimmock and Company (WN149/135). This parcel included part of the closed road and the right of way which gave access to the stream that "had been utilised for Tyer's business" (Evening Post, 1907). Dimmock and Co were ham and bacon curers, and ice manufacturers. They were one of the biggest meat curing firms in New Zealand, as the co-manufacturer of ice enabled them to cure throughout the year (New Zealand Mail, 1906b). The Company used 40,000 gallons a day for freezing and, when the abattoirs were running, 1,500 gallons an hour were required. The adjacent Meat Export Company used 200,000 gallons a day. Water was "vitally essential to their enterprise" (Evening Post, 1907).

In late 1906 the firm built a concrete culvert to channel water to their new property. The plans and specifications were prepared by W.O. (Wynford Ormsby) Beere, a "well known" civil engineer, surveyor and architect (Hawera & Normanby Star,



1915; Hutt Valley Independent, 1917; New Zealand Times, 1906). In 1907 Dimmock & Co built a new freezing and refrigeration plant at Ngauranga, at a cost of £30,000. The complex included abattoirs, factory and cold storage rooms, and was designed by architect F de J. Clere (New Zealand Mail, 1907b). Messrs Cunningham and Co, of Petone, won the tender for erecting the concrete portion of the abattoirs (New Zealand Mail, 1907a).

In July 1907 Beere advertised for tenders for the construction of a reinforced concrete reservoir for Dimmock and Co. (New Zealand Times, 1907). Works were completed in late 1907 and, that same month, the Company made reference to their new dam (Evening Post, 1907). No specific tender for this dam appeared in the newspapers of the day but may have been included in the concrete reservoir works.

In the early twentieth century New Zealand engineers used emerging technologies in iron, steel and ferro concrete to construct massive structures (Wright, 1999, p. 10). Reinforced concrete came into common use around the early 1900s, predating those in England, for example, where masonry was the preferred material (Reed et al., 2008). Dimock and Co.'s concrete arch dam at Ngauranga was part of this important transition away from timber, earth and masonry dams of the nineteenth century to the use of mass concrete (Engineering New Zealand, 2014; Wellington City Council, 1971b). Concrete facing had been used on nineteenth century dams for protection but now the entire structure could be mass concrete. The dam was at the forefront of such technology: for example Dunedin's George Street bridge was the first reinforced concrete bridge in New Zealand and was erected 1902-1903. The Korokoro Stream Dam was built in 1903 and was the first mass concrete dam in New Zealand (Engineering New Zealand, 2014). Dimock and co.'s dam followed only four years later. The new dam contained 1,272,000 gallons of water and had a catchment of 154 acres. Costing £1500 to build, it was likely designed by W.O. Beere who was in charge of the Company's other concrete works (Evening Post, 1907).

It is unclear what happened to the dam constructed by Tyer in the 1890s. Whether it was replaced by the Dimock dam in 1907, or whether the current dam is a combination of work by both Dyer and Dimock. The construction of the existing dam appears to be stone with a concrete overlay – and this suggests that it was constructed by Dimock. But photographs show various parts of elements that may be part of the earlier works including remains of timber elements and scattered remains of metal work.



Tyers Stream Reserve

In 1916 W. Dimock & Co was purchased by the New Zealand Farmers' Co-op Bacon and Meat Packing Co. Ltd, a co-operative of several firms (Dominion, 1916). That same year Tyers Stream became part of a debate over the Onslow water supply scheme. While some in the community felt the water in the stream could be put to better use for the surrounding suburbs, it was generally agreed that the flow of water was insufficient. While the Wainuiomata Stream, for example, had a flow in summer of 11, 356 cubic metres per day, Tyers Stream had only 56 to 113 cubic metres of water per day (Evening Post, 1917).

In 1925 New Zealand Farmers' Co-op Bacon and Meat Packing Co. Ltd became the New Zealand Meat Packing and Bacon Company (Co-op) Limited (WN222/65). In 1927 the Company sold their works to J.C. Hutton Ltd who continued meat processing works at the Ngauranga site (WN222/65, WN374/293). In 1954 J.C. Hutton Ltd sold the property to Wright Stephenson Properties Ltd who continued to use the water from the dam (WN374/293, Wellington City Council, 1971a). Over the 1960s-1970s parts of the larger site were taken for roading purposes (WN374/293). Despite these developments and the passage of several decades, the stream and dam retained Tyer's moniker.

In 1971 much of the adjacent Section 7 was purchased by the Wellington City Council. The land was purchased as a tip site, but because of the proximity of residential developments, regenerating native vegetation and remnants of pre-1840 indigenous forest it was decided to instead establish a reserve - Tyers Stream Reserve (Wellington City Council, 1981; Wildlands Consultants, 2010). In 1974 the Council carried out a public survey gathering ideas for possible uses for the reserve. The public responded that tracks to the dam should be formed: "children who have been to the dam tell their parents, they then come to see for themselves" (Wellington City Council, 1974).

In 1985 Tyers Stream Dam was inspected and found to be in good repair although the millpond behind the dam was almost completely filled with silt, allowing only about 600mm below the top of the dam for storage purposes. The ponding area below the dam was found to have a similar capacity to that provided above the dam (Wellington City Council, 1971b). The dam was retaining more silt than water and was no longer in use. In1986 Part Section 7 was subdivided. The dam and part of the stream was located on the newly created Lot 4, and vested in the Wellington City Council as part of the reserve (DP 58937). Today the small dam sits on the eastern edge of Tyers Stream Reserve, largely covered with vegetation (Wellington City Council, 1981).

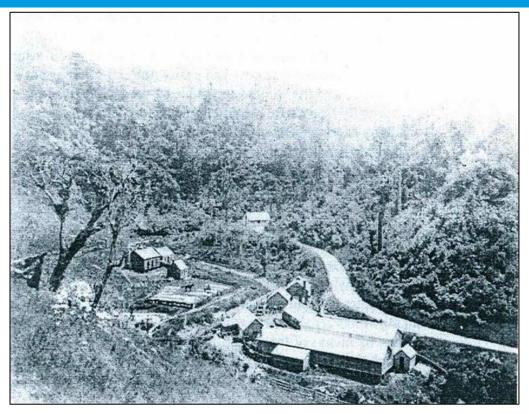


Tyers Stream group

The Tyers Stream community organisation, established in 2019, is a group who carry out work that "goes towards protecting and restoring 'an ecologically' and historically significant area in the heart of Khandallah" (Tyers Stream Group, 2023). They carry out regular weeding and working bees around the stream and reserve, and also has an active planting programme in the area immediately above the dam. They also advocate for the protection of the area, including water quality (Tyers Stream Group, 2023). Associated with this organisation are the Guardians of Tyers Stream (Kaitiaki o Waitohi) who are concerned with the restoration of the Reserve. They aim to control weeds and predators, monitor the cleanliness of the water, restore former native vegetations, increase the bird population and control erosion (Guardians of Tyers Stream (Kaitiaki o Waitohi), 2023).



Photographs and Images

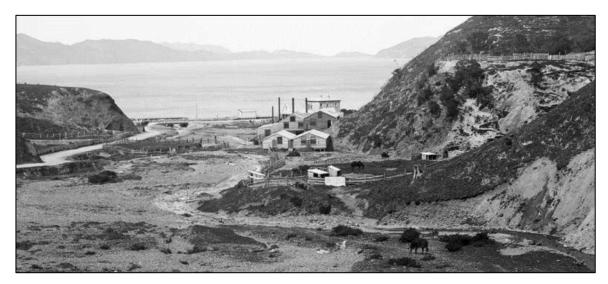


Alfred Tyer's tannery and fellmongery, undated (Callow, 2009).



"Ngauranga Gorge - tannery now Huttons" (Bryant, n.d.).

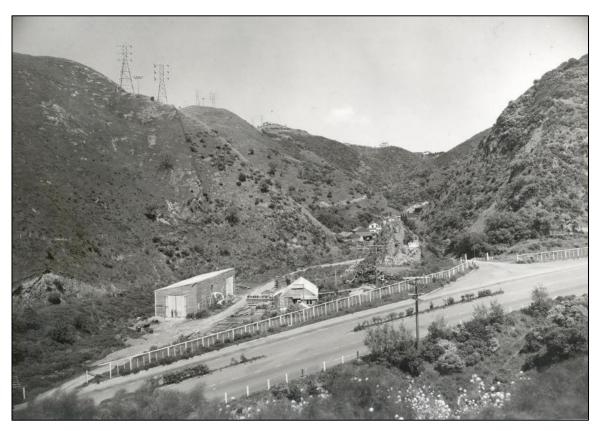




Detail of "Ngauranga Gorge in Wellington", likely showing the works of the Meat Export Company.

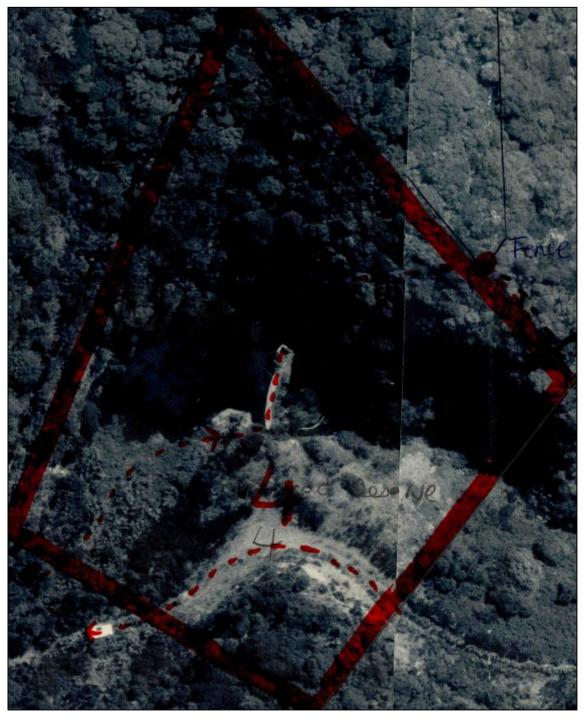
Ngauranga Gorge Road is on the left of the image. The tannery buildings are tucked in to the hill on the right

(Williams, n.d.).



View from Ngauranga Road, looking towards the old tannery site tucked in the hills, 1956 (Wright Stephenson & Co Ltd. Wellington Branch, 1956).





Aerial showing the top of Tyers Stream Dam, marked by the red dotted line (Wellington City Council, 1971b).





Views of the dam, looking up the height of the structure (Daubé & Wellington City Council, 2022).



An acees ladder tuns up the dam and pipes set into the dam help drain water (Daubé & Wellington City Council, 2022).





Metal remains of other structures are scatterd around the dam (Daubé & Wellington City Council, 2022).





Views looking down the dam to the stream below (Daubé & Wellington City Council, 2022).





Looking across to the dam (Daubé & Wellington City Council, 2022).



Remains of a timber structure perhaps associated with the original dam (Daubé & Wellington City Council, 2022).



Chronologies and Timelines

Timeline of events, including modifications

| 1847 | Section 7, Harbour District, Block XI Belmont SD established as part of Ngauranga Native Reserve. Includes a stream and is an area of cultivation |
|---------------|--|
| 1865/1866 | Alfred Tyer establishes tannery and fellmongery on Section 8 Block XI Belmont SD, bordering Section 7 and the stream. He alters the channel of the stream. |
| 1884 | Wellington Meat Preserving and Refrigerating Company erect a dam. Location of dam unclear. |
| 1894 | Subdivision of Part Section 7 adjacent to tannery and including the stream. Purchased by Alfred Tyer. |
| 1906 | Tyer sells tannery and survey plan produced for property transfer marks the dam on site. |
| 1906 | W. Dimock and Co. purchase Part Section 8 (site of Tyer's tannery) and gain water rights to the stream. |
| 1907 | New plant built for W. Dimock and Co., designed by architect F de J Clere. |
| 1907 | Tender issued for reinforced concrete reservoir designed by W.O. Beer. |
| December 1907 | W. Dimock and Co. refer to newly constructed dam. |
| 1916 | W. Dimock & Co purchased by the New Zealand Farmers' Coop Bacon and Meat Packing Co. Ltd. |
| 1927 | Site purchased by J.C. Hutton Ltd. |
| 1954 | Site purchased by Wright Stephenson Properties Ltd. |
| 1971 | Part Section 7 purchased by Wellington City Council for tipping site. Later set aside as a reserve. |
| 1986 | Part Section 7 subdivided. The dam located on new Lot 4 and vested in the Wellington City Council as part of Tyers Stream Reserve. |

Occupation history

1865/1866-1906 Alfred Tyer's Ngahauranga Tannery

1906-1916 W. Dimmock & Co

1916-1927 New Zealand Farmers' Co-op Bacon and Meat Packing Co.

Ltd.



1927-1954 J.C. Hutton Ltd.

1954-1986 Wright Stephenson Properties Ltd.

1986- Wellington City Council.

Biographies

Alfred Tyer (1841-1924)

Alfred Tyer was born in Twyford, Berkshire, in 1841. His uncle, Sir John Musgrove, was one of the original directors of the New Zealand Land Company. Tyer arrived in Wellington in 1859 on board the *Robert Small*. He made his way to Ngauranga where he may have worked at F. Taylor's tallow works (Ward, 1928, p. 279). Soon afterwards Alfred left Ngauranga to help survey various parts of New Zealand, including the site of Invercargill. He spent some time in Otago in 1861 during the gold rush but in 1863 decided to return to Wellington. Alfred was on board the *Pride of the Yarra* when it collided with the *Favourite* at the Otago Heads: he survived but twelve of his fellow passengers drowned (Wairarapa Age, 1924).

Returning to Ngauranga, Alfred established a fellmongery and tannery. At first his business was called the Ngahauranga Boiling Down Establishment but in 1875 became the Ngahauranga Steam Wool Scouring Works and eventually the Ngahauranga Tannery (New Zealand Times, 1875a; Wairarapa Standard, 1871). Alfred was innovative in his business practices, and was the first in New Zealand to use machinery to scour wool; the first to ship pelts to England in a "pickled" state; and the first to introduce a method of removing hair from pelts which was used well into the 1920s. He established relationships with companies in Britain and Australia for the supply of bark and other materials used in tanning, all of the "very best quality procurable" (Cyclopedia Company Limited, 1897c). Tyer, "while still a young man", became one of the largest producers and exporters of wool, hides, skins and tallow (Wairarapa Age, 1924). As a result, his products were known around New Zealand to be of excellent quality and the leather "sells itself" (Cyclopedia Company Limited, 1897c).

In 1869 Alfred married Hannah Bould (1848-1912), daughter of Robert Bould of Daisy Hill Farmhouse, Johnsonville (Wellington City Council, 2017). The couple had thirteen children. After selling the tannery in 1906 Alfred and Hannah moved to Turakina and farmed land there. Hannah died in August 1924. Alfred died two days later, aged 83 (Wairarapa Age, 1924). On his death, Alfred was described as "a man of an exceedingly retiring disposition, hating publicity and shying from public office. Of the most integrity and kindness of heart, he was held in the highest esteem by all who knew him" (Wairarapa Age, 1924).



W. Dimock and Company Ltd

William and Victor Dimock were English-born brothers and butchers. Their sister married George William Banks of the Banks Meat Company (Evening Post, 1886). In 1885 the brothers started the first bacon factory in the North Island located between Ngauranga and Kaiwharawhara. This was the first bacon-curing factory in New Zealand to install a freezing plant (Evening Post, 1889). In 1890, however, the Dimock factory was lost in a fire (Cyclopedia Company Limited, 1897a).

In 1891 William went into business with F. Martin a "pork butcher" (Evening Post, 1891). He imported a freezing machine and erected it at the rear of Martin's premises. William also erected a "cool chamber" and produced about half a ton of ice a day (Evening Post, 1891). William soon took over Martin's works and as business expanded moved from Willis Street to at Waterloo Quay. He purchased "refrigerating chambers worked by a Linde freezing machine" enabling the company to continue working through the summer season. By 1897 W. Dimock and Co. employed nine men and cured around 150 pigs a week (Cyclopedia Company Limited, 1897a). In 1899 William toured England, Europe and America in order to study methods in other countries: "He made a very thorough investigation, and after getting all the information possible he built the present factory" (Dominion, 1909). The Ngauranga factory was capable of handling 1000 pigs per day (Dominion, 1909).

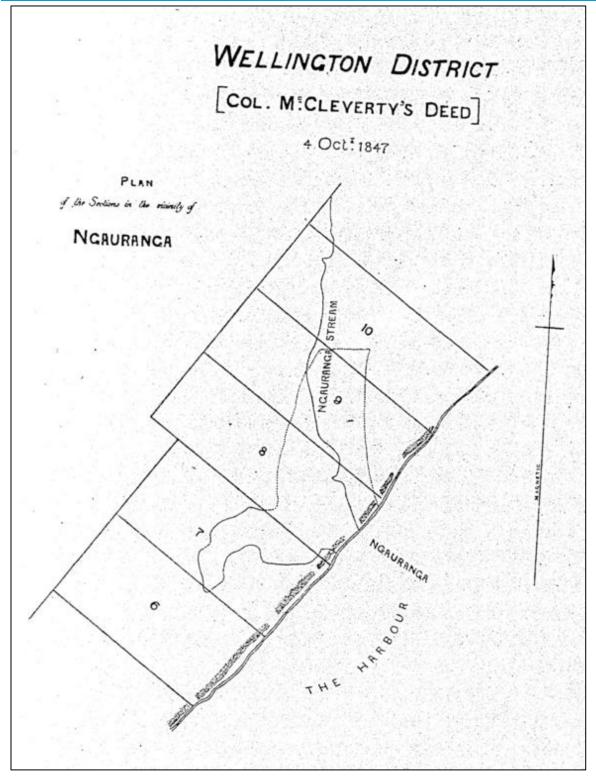
William retired as manager in 1909 but remained a company director. (Dominion, 1909). In 1911 the *New Zealand Times* had this to say of the company:

Recognising the ever-increasing fastidiousness of the housewife of the land, this company, during the last few years, has built the most up-to-date factory south of the line, and are now in a position to turn out a variety of canned eatables attractive enough to tempt the "direst dispeptic to sin". The perfection of the "Swan" Brand hams and bacon is so well known, from Auckland to the Bluff that it would be superfluous to refer to this were it not for the fact that it is sometimes said that really good bacon is not obtainable in New Zealand. In this connection it might be said that the company some few months ago sent several shipments to London, and the quality was pronounced to be equal to the very best of the Home article. With this company "quality" is the prime consideration, for from the first selection of the pig to the completion of the finished product every precaution is taken to ensure this result. (New Zealand Times, 1911).

In 1889 William had married Mary Rogerson, with who he had one daughter. In 1928 William and Mary left Wellington for Palmerston North, where he died in 1939, aged 75.

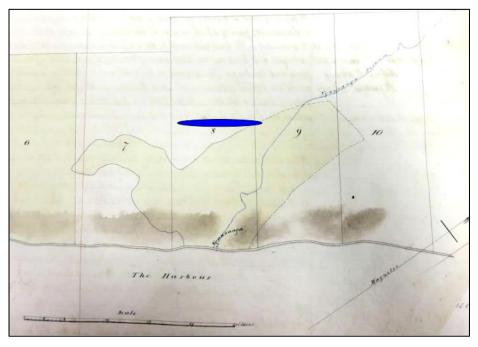


Plans

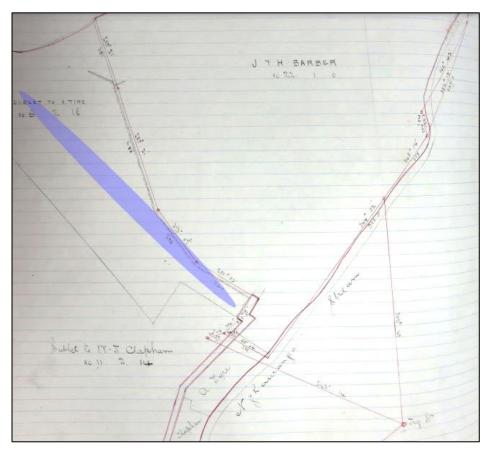


"Colonel McCleverty's Deed", October 1847, showing the sections included in the Ngauranga Native Reserve (Hanson Turton, 1847).



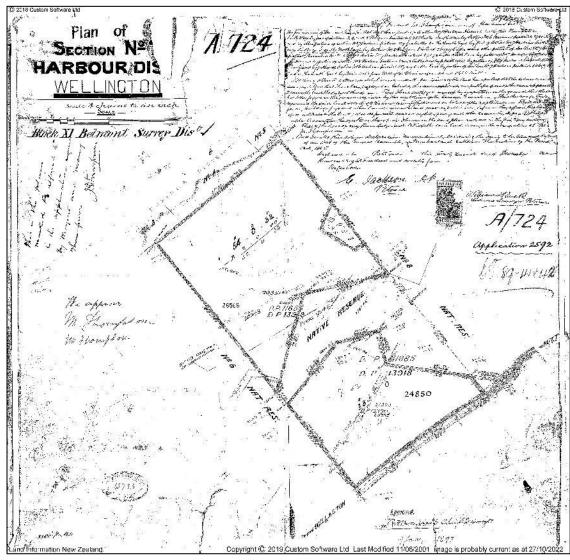


Annotated plan from Wellington Deeds Register Volume 1, Folio 301. The yellow marks areas of cultivation. The area of blue marks the approximate location of Lower Tyers Road (Grouden & Capital Heritage Limited, 2016).



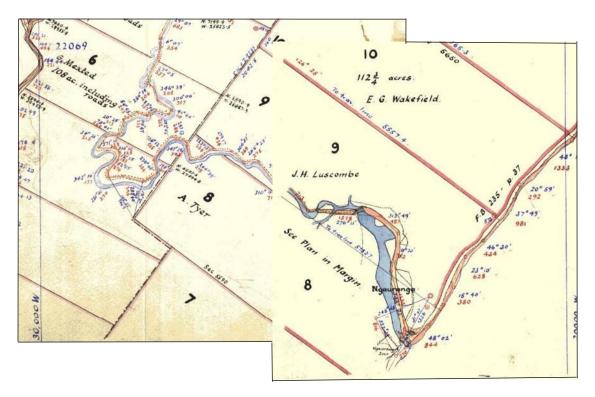
Annotated detail of map from Wellington Deeds Register Volume 82, Folio 3 showing "A. Tire" sublease of six acres. The approximate location of Lower Tyers Road is highlighted in blue (Grouden & Capital Heritage Limited, 2016).



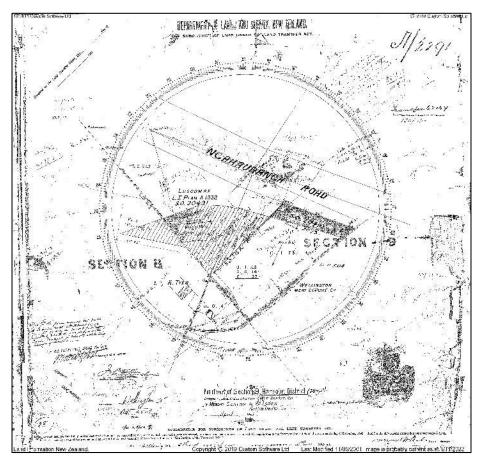


Survey plan, 1897, Tyers Stream and the area which would contain the Dam was first subdivided from the native reserve (A724).



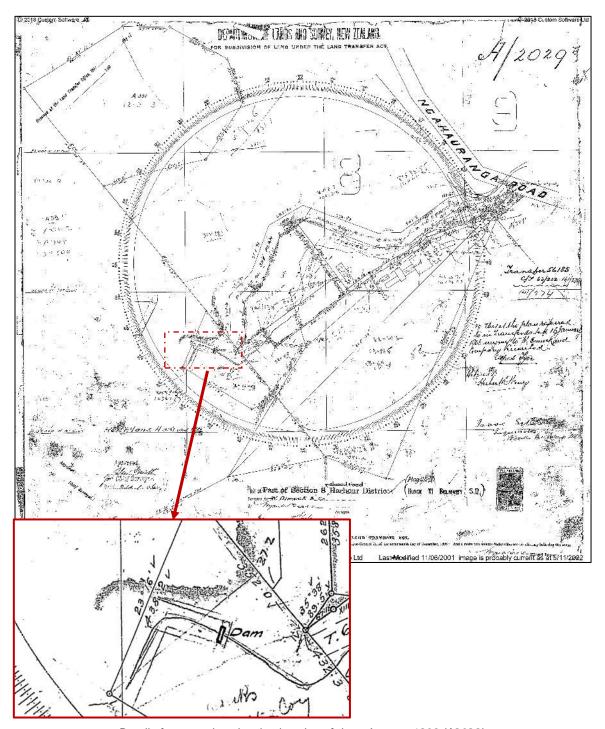


A combination of early survey plans (c.1872) showing the Alfred Tyer's occupation of Section 8 and original course of Ngauranga Stream (SO11030, SO11031).



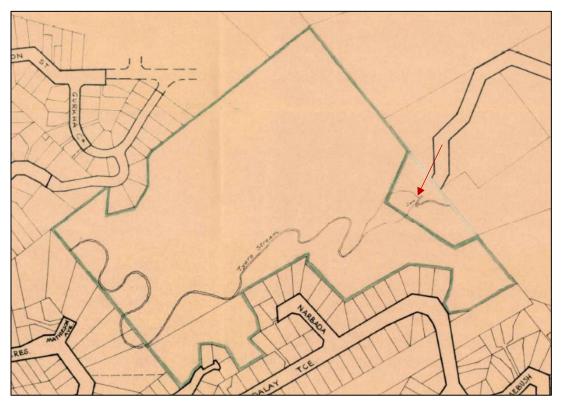
Survey plan showing Tyer's tannery, the creek and the site of the Wellington Meat Co., 1903 (A2291).



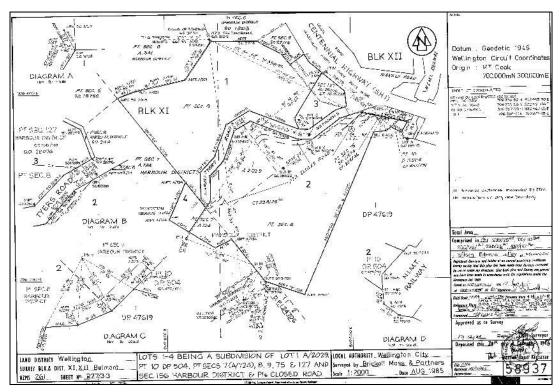


Detail of survey plan showing location of dam, January 1906 (A2029).





Reserve prior to purchase of Lot 4 containing the dam (marked by red arrow) (Wellington City Council, 1971b).



Survey plan showing subdivision and creation of Lot 4, including the dam (SO 58937).



Physical Description

Setting – geographical / physical context

Ngauranga Gorge is part of the main route north of Wellington, linking the city with northern suburbs, Porirua and the Kapiti Coast. Tyers Stream rises on Mt Kaukau, flows above Khandallah Park and falls down steep banks in the hills towards the harbour: "understated and largely unseen, catching water from Khandallah and Broadmeadows and shuttling it down past back gardens and bush reserves" (Environmental Protection Authority, 2022). It reaches Tyers Stream Reserve and "runs through creases in the forested land, a natural waterfall bursting over an old dam, passing tree ferns and kawakawa" (Environmental Protection Authority, 2022).

Buildings or structures

Tyers Dam is a concrete arch dam located in the Tyer Stream Reserve. It measures 18 metres long and 12 metres high and is founded on rock foundations in the V-shaped Tyer Stream valley. Tyers Dam is one metre thick at the top and tapers to a greater thickness at the base (Wellington City Council, 1971b). It is relatively obscured by overgrowth.

Materials

- Concrete
- Rock foundation

Archaeological sites

The site, Lot 4 DP 58937 (WN39C/276), Recreation Reserve, Wellington Land District has potential to be an archaeological site as defined by the Heritage New Zealand Pouhere Taonga Act 2014 given Tyer altered the course of the stream, and nineteenth century dam-related structures remain. It has not been recorded under the NZAA Recording Scheme Archsite.

Setting - surroundings / site description

The twelve metre high dam sits on rock foundations. Steep sides of the rising banks crowd the site, as well as loose rocks and loose gravel. The banks are steep and unstable and access to the dam itself is difficult and unsafe. The top of the dam is nearly overtaken by weeds. Much of the dam structure is obscured by overhanging trees and bush (Environmental Protection Authority, 2022).



The area is cared for by the Tyers Stream community group who work to protect and restore this ecologically and historically significant area in the heart of Khandallah. The dam is now surrounded by regenerating native bush as part of a recreation reserve.

Comparative Analysis Summary

Other small dams dating to the nineteenth and early twentieth century remain extant in the Wellington Region. One example is the Ohariu Stream Dam. Although part of a system of three dams, it is the Ohariu Dam that is of a size relative to Tyers Stream Dam. Built in 1910, three years after Tyers Dam, it was part of the public water supply for Johnsonville rather than for a commercial enterprise. Another example, the Karori Water Supply Dams were similarly public dams built to supply water to Wellington. Upper Karori Dam is another example of a reinforced concrete dam built around the same time as Tyers Dam. It was much larger in scale, however, and was one of the earliest large scale concrete gravity dams in New Zealand.

The Korokoro Stream Dams provide a particularly interesting comparison. Like Alfred Tyer and W. Dimmock & Co., the Wellington Woollen Manufacturing Company positioned their works close to the banks of a stream. Water was necessary for many processes and also drove a turbine at the mill. The Company originally built a wooden dam from totara, but their water supply was threatened by a dam higher up on the Korokoro Stream proposed by Petone Borough Council. In order to ensure a continued steady supply, the Council replaced the totara dam. It was of a similar height to Tyers Stream Dam, constructed of concrete and also of an arch design. It is recorded as one of New Zealand's earliest mass concrete dams. It makes a fine comparison and like Tyers Stream Dam, is now part of a recreational reserve.

While Tyers Dam may not be the first or best example in its class, it is significant as an extant structure built for commercial purposes by a commercial firm. Even the closest comparison, Wellington Woollen Manufacturing Company's dam, was built by a Borough Council. Tyers Stream Dam then is a fine example of a purpose-built private dam serving commercial enterprises.



Evaluation Criteria

- A. Historic values: these relate to the history of a place and how it demonstrates important historical themes, events, people or experiences.
- (i) Themes: the place is associated with important themes in history or patterns of development.

Tyers Stream Dam is a testament to the tanneries, fellmongeries, abattoirs and meat processing plants that centred on Ngauranga from around the mid-1860s. As an example of these types of commercial enterprises and their dependence on a steady supply of water, the dam has **regionally significant historic** values. The site is associated with several important historical themes including Māori migration and settlement, early colonists, and early commercial ventures. The dam is also associated with the themes of response to topography and water supply infrastructure.

(ii) Events: the place has an association with an important event or events in local, regional or national history.

Unknown.

(iii) People: the place is associated with the life or works of an individual, group or organisation that has made a significant contribution to the district, region or nation

Tyers Stream Dam is associated with Alfred Tyer and W. Dimmock and Co Ltd. Both companies made high quality goods that were known throughout New Zealand and beyond. For this association the Dam has **some significance** on a **national** level.

(iv) Social: the place is associated with everyday experiences from the past and contributes to our understanding of the culture and life of the district, region or nation.



Tyers Stream Dam was part of a larger area in Ngauranga relating to tanning, fellmongery, and meat processing and preserving. Tyers Dam provides insight into the detailed processes and technology employed at these works. For this reason, Tyers Dam has **significant** social value as a testament to tanning and meat processing works of the past, at a **regional** level.

- B. Physical values: these values relate to the physical evidence present.
- (i) Archaeological: there is potential for archaeological investigation to contribute new or important information about the human history of the district, region or nation.

The section which the dam occupies was part of a Māori reserve cultivation area. The course of the stream was changed by Alfred Tyer and a dam was likely erected pre-1900. Investigation of the site using archaeological methods would contribute to the knowledge and understanding of the region. The archaeological values are considered to be of **significant regionally**.

(ii) Architectural: the place is notable for its style, design, form, scale, materials, ornamentation, period, craftsmanship or other architectural values

Tyers Stream Dam has architectural value as a concrete arch dam constructed in the early twentieth century for commercial enterprise. It was near the forefront of mass concrete dams erected in New Zealand. Remnants of nineteenth century dam-related infrastructure are also a testament to the structure constructed by tanneries and meat processing and preserving plants that came to dominate the Ngauranga Gorge from the mid-1860s onwards. For this reason, the dam is **significant regionally.**

(iii) Townscape: the place is strongly associated with other natural or cultural features in the landscape or townscape, and/or contributes to the heritage values of a wider townscape or landscape setting, and/or it is a landmark.



Tyers Dam is relatively hidden, but is an important part of the wider Tyers Stream Reserve. The dam makes a **significant local** contribution as a landmark in the reserve setting.

(iv) Groups: The place is part of a group of buildings, structures, or sites that taken together have coherence because of their age, history, style, scale, materials, or use.

Tyers Stream Dam once formed part of a group of tannery and meat processing buildings, which have since been replaced. It has group value as an example of a small commercial dam used to provide a steady supply of water. For these reasons, the dam has **some local** value.

(v) Surroundings: the setting or context of the place contributes to an appreciation and understanding of its character, history and/or development.

The dam is part of Tyers Stream Reserve which is historically significant. The dam contributes to its surroundings as the only extant structure which memorialises Alfred Tyer and his successful tannery and fellmongery on Section 7. It is also a testament to the meat processing and preserving plants that were located on Section 8 and were equally reliant on the dam and water supply.

It is now set in an area of regenerating native bush as part of a recreational reserve with significant local ecological and historical values. For these reasons, Tyers Stream Dam is **regionally significant.**

(vi) Scientific: The area or place has the potential to provide scientific information about the history of the district or region

Unknown.

(vii) Technological: the place provides evidence of the history of technological development; and/or demonstrates innovation or important methods of construction or design; and/or contains unusual construction materials.



Tyers Stream Dam provides evidence of early twentieth century concrete arch dams. The new dam was near the forefront of such technology, since the first mass concrete dam in New Zealand was built in 1903 in Wellington. Tyers Stream Dam would follow only a few years later. The place may also contain remnants of nineteenth century dam-related infrastructure. For these reasons the dam has **significant** value on a **regional** level.

(viii) Integrity: the significant physical values of the place have been largely unmodified. This includes the retention of important modifications and/or additions from later periods.

Tyers Stream Dam was built in 1907 and appears to be in an unmodified state. Remnants of nineteenth century dam-related infrastructure are likely also on site. As the physical values are original to the date of construction, the dam has a **high degree** of integrity which is **significant** on a **regional** level.

(ix) Age: the place is particularly old in the context of human occupation of the Wellington region.

While Tyers Stream Dam is over one hundred years old, it is **not** particularly old in the context of occupation of the Wellington region. It has **some** value **regionally** as an early concrete arch dam construction.

- C. Social values: these values relate to the meanings that a place has for a particular community or communities.
- (i) Sentiment: the place has strong or special associations with a particular cultural group or community for spiritual, political, social, religious, ethnic, national, symbolic or commemorative reasons.

Unknown.

(ii) Recognition: the place is held in high public esteem for its historic heritage values, or its contribution to the sense of identity of a community, to the extent that if it was damaged or destroyed it would cause a sense of loss.



Tyers Dam contributes to the historical significance of Tyers Stream Reserve and the name has **significant local** recognition, including by the Tyers Stream community organisation. Should the dam fail or be destroyed it would cause **some** sense of loss in the community, particularly to the Tyers Stream community organisation.

(iii) Sense of place/ continuity: the place provides evidence of cultural or historical continuity, or contributes to a sense of place for a community

Tyers Dam is **significant locally** for the evidence it provides of the history of Ngā Ūranga/Ngauranga and including commercial enterprises which were first established in the area in the nineteenth century. It is a remaining example and testament of the tanneries, fellmongers, abattoirs and meat processing and preserving works which once populated the Gorge. The dam recreational reserve which, over time, is likely to become well-used by the local communities.

D. Tangata whenua values: the place is sacred or important to Māori for spiritual, cultural or historical reasons.

Tangata whenua values have not been assessed.

E. Rarity: the place is unique or rare within the district or region.

While Tyers Stream Dam may not have been rare or unusual at the time of its construction, the majority of dams built today are large structures built for hydropower and flood protection. Tyers Dam is a testament to those small commercial dams built by businesses reliant on water. Privately built dams provided water for early flour mills, high pressure water for goldmining and sluicing, and a ready supply of water for commercial enterprises like tanneries and abattoirs. Today these individually operated dams are either long gone or hidden on private land. Tyers Dam one of the diminishing groups of small commercial dams which are publicly accessible and protected as part of a large reserve. For these reasons, Tyers Stream Dam has **significance** on a **regional** level.

F. Representativeness: the place is a good example of its type, era or class it represents.

Tyers Stream Dam is a **fine example regionally** of the privately operated dams that were built to harness the water that flowed down steep hillsides. River channels were



altered, and dams built to serve the purposes of various enterprises. In Ngauranga those commercial enterprises showed a remarkable degree of cohesion: tanneries, fellmongeries and meat processing and preserving works. The dam, then represents the many privately built and operated dams through the region.

Recommendations

Tyers Stream Dam meets the threshold for eligibility as a Historic Heritage Building and it is recommended it is added to the District Plan Schedule of Historic Items. The dam has significant **historic**, **physical** and **social** values, which relate in particular to its rarity, integrity and representativeness. Tyler's Stream Dam contributes to our understanding of the various historic processes undertaken in tanneries, fellmongeries, and meat packing and preserving works. This is all the more significant in Ngauranga where a high concentration of these commercial enterprises were grouped in the nineteenth and twentieth centuries. Overall Tyers Stream Dam to have **significant historic heritage values** at a **regional** level.

Other recommendations:

It is also recommended that Tyers Stream Dam is nominated for inclusion on the Heritage New Zealand Pouhere Taonga List/Rārangi Kōrero and Engineering NZ's Heritage Register.

Extent of the Place

It is recommended that the extent of the place include the entirety of the legal parcel and the entire form of Tyers Stream Dam. This parcel also incorporates the nineteenth century structures grouped around the dam.

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Appendices

Appendix 1 Comparative analysis

Appendix 2 Wellington Thematic Heritage Study 2013

Appendix 3 Supplementary images

Appendix 4 Records of title



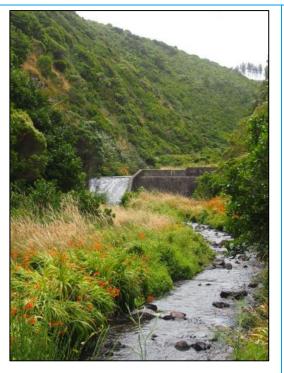
Appendix 1 Comparative analysis

| Early Twentieth Century Wellington Dams | | | | |
|---|--|---|---|--|
| Place name | Address/ location/ NZTM | Heritage Listing or recognition of significance | Photographs | Analysis |
| Johnsonville Dams | Off the Old Coach Road, from the end of Rifle Range Road, Ohariu Valley | | View of the overgrown Truscotte Avenue Dam, 2016 (Engineering New Zealand, 2019). | Like Tyler's Stream Johnsonville's Ohariu Stream dam was relatively small and built in the early years of the twentieth century. The Johnsonville dams, however, were for public water supply. In 1910, Johnsonville Town Board raised a special loan of £8,500 to ensure a steady supply of water for the growing suburb. They commissioned the erection of a dam on the Ohariu Stream capable of holding 318,000 litres. Like Tyler's Stream dam, it was relatively small. A pump was installed to draw water up to the hill to a much larger |

| | | 1.3 million litre reservoir and holding dam on the Totara Ridge. From the Ridge untreated water was reticulated to the township below. Water was turned on in 1912. As a result of a storm in 1918, the pumping station was destroyed by mud and debris. A new earthen dam was completed in 1920 restoring the residents' supply of reticulated water. In 1926, a dwindling water supply saw the Ohariu dam cleaned out and re-opened. Today, like Tyers Stream Dam, the dams are no longer in use and have fallen into |
|--|--|---|
| | | disrepair, but the remains of the dams and their pipework are still visible (Engineering New Zealand, 2019). |



Korokoro Stream Dams Belmont Regional Park, Lower Hutt Engineering New Zealand Heritage Register



Former Wellington Woollen Manufacturing Company dam, lower Korokoro Stream, 2014 (Engineering New Zealand, 2014).

The Korokoro Stream Dams include a 1903 public waterworks dam and, downstream, the Wellington Woollen Manufacturing Company Dam. Built in 1904 the concrete dam makes an interesting comparison with Tyers Stream Dam as it was built for the use of a commercial enterprise and replaced an earlier wooden dam erected by the Company.

The Woollen Company established their mill near the mouth of the Korokoro Stream to maximise their access to the necessary water supply. When the Petone Borough Council decided to dam the stream for public water supply, the Company took legal action against the Council for diminishing their supply of water. The Council eventually built a dam for the Woollen Company downstream of the public works dam to compensate. It replaced an earlier totara dam erected by the company which drove a turbine at the mill





View of former Wellington Woollen Manufacturing Company dam, from the east bank of the Korokoro Stream, 2014 (Engineering New Zealand, 2014).

(Damwatch & Wellington Regional Council, 2006). The dam was six metres high and a mass concrete gravity dam (arch dam). It was designed by Petone Borough Engineer, Samuel Jickell and is one of New Zealand's earliest mass concrete dams.

Both dams were decommissioned in the late twentieth century, and are now part of the Belmont Regional Park (Engineering New Zealand, 2014; Engineering New Zealand et al., 2014).

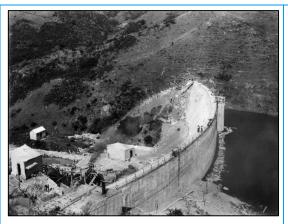


Karori Water Supply Dams

Waiapu Road, Karori

Lower Karori Dam Category 1 (List No. 7750) Upper Karori Dam, Category 2, List No. 7749.

Engineering New Zealand Heritage Register



Upper Karori Dam under construction (Unknown, 1907).



Upper Karori Dam, (Heritage New Zealand Pouhere Taonga, 2009).

Lower Karori Dam was erected in 1878. Upper Karori Dam was constructed between 1906 and 1908, around the same time as Tyers Stream Dam. Both are concrete constructions but the Upper Karori Dam is much larger in scale.

Wellington's rising population in the 1860s and 1870 promoted the construction of the Lower Karori Dam in 1878: "Wellington became the first municipality in New Zealand to construct a public water supply dam". It was designed by Nicholas Marchant and is an earth dam with a puddled clay core. Concrete was also used as the shaft and to line the reservoir, which was innovative for the period (Wymer, 2005). Population continued to increase and water resources around Karori and the greater Wellington region struggled to keep up with the demand. Upper Karori Dam was constructed between 1906 and 1908. It was "a pioneering structure:



| | | as one of the earliest large scale concrete gravity dams in New Zealand". It was designed by William H. Morton. Due to earthquake safety concerns, the dams were decommissioned in the |
|--|--|--|
| | | 1990s. |



Appendix 2 Wellington Thematic Heritage Study 2013

Refer to the Wellington Thematic Heritage Study 2013

https://wellington.govt.nz/~/media/services/community-and-culture/heritage/files/thematic-heritage-study.pdf

| | Select the themes & subthemes which apply to the place | Yes / some (add explanation) | |
|-------|--|---|--|
| Α | MIGRATION/ IMMIGRATION | | |
| A1.1 | Maori migration | | |
| A1.1B | Settlements | Yes. Associated with Te Wharepouri and the settlement of Ngauranga | |
| A1.1F | Gardens | Yes. Section 7 was an area of cultivation | |
| A1.1H | Streams and waters | Yes. Section 7 included a stream | |
| A2 | Settlement Patterns | | |
| A2.1 | Maori Settlement | | |
| A2.1A | Pa, urupā, settlements (kainga), canoe landing places, gardens, midden | Yes. Sections 7 and 8 were part of the Ngauranga Native Reserve, 1847 | |
| A2.2 | Colonisation | | |
| A2.2E | Early commercial ventures | Yes. Tyer established a tannery on Section 8 | |
| A2.2G | Roads | Some. Tyer constructed an early road which has since become Lower Tyers Road | |
| A3 | People and the natural environment | | |
| A3.1 | Response to Topography | | |
| A3.1E | Reclamations | Yes. Tyer changed the channel of the stream and removed fill from the hill to provide a flat building space | |
| A4.7 | Water supply infrastructure | | |

| A4.7A | Dams, culverts, pipes | Yes. Water was essential to the works on Section 8. |
|-------|-----------------------------------|---|
| D | BUILDING SOCIAL AND CULTURAL LIFE | |
| D4.3 | Open Spaces | |
| D4.3A | Recreational reserves | Yes. Tyers Dam is now part of Tyers Stream Reserve |



Appendix 3 Supplementary images

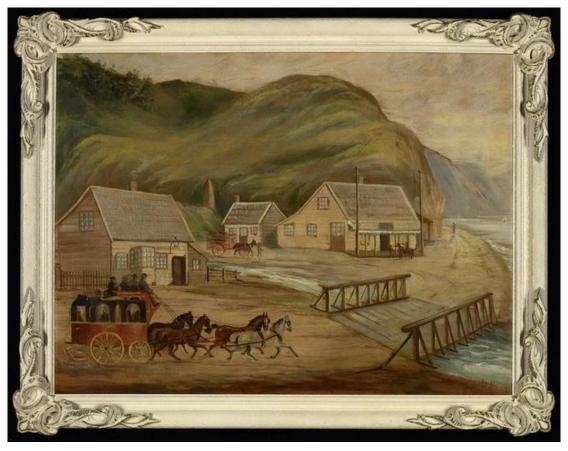


Ngauranga Road, Wellington. By Lieutenant Colonel William McCleverty, c.1846 (McCleverty, n.d.).





"Hand-coloured engraving from a watercolour [Ngauranga Gorge and Stream, ca 1845], Ref. no. B-031-008, by S. C. Brees. It shows the stream viewed from the Wellington Harbour side, looking back into the Ngaio hills, with a Maori man carrying a European woman on his shoulders across the stream. On the right side is Ngauranga Pa, with the canoe memorial to Wharepouri amongst small houses. The waka-taua (canoe) is named "Te Wheke-a-Muturangi" and belonged to Te Wharepouri" (Brees & Melville, 1842).

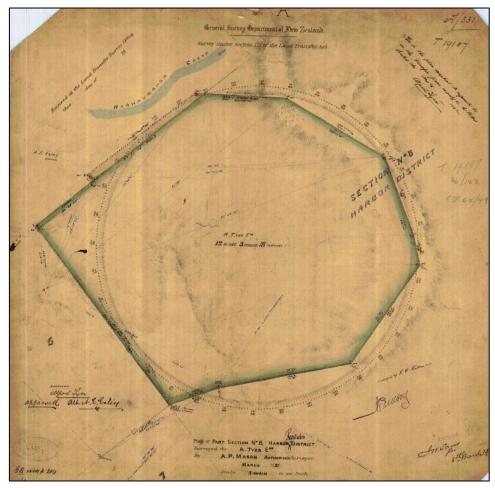


Painting showing a coach and four horses about to cross a bridge over Ngauranga stream in the foreground. The Hutt Road is visible to the right. Three buildings, including Futter's Tavern in the background. There is a half-canoe monument to Te Wharepouri, upright in the ground beyond the buildings and below the hills (Rollason, n.d.).





View of the buildings at the bottom of the Gorge.c.1875. Part of the hillside has been completely cleared (Bragge, 1875).



Survey plan showing Tyer's freehold holdings on northern part of Section 8, 1891 (A331).





Ngauranga in 1897 (The Cyclopedia Company Limited, 1897).



View of Tyers Stream Dam looking towards the top (Cadenhead, 2023).





View of top of Tyers Stream Dam (Rogue Sheep, 2008).





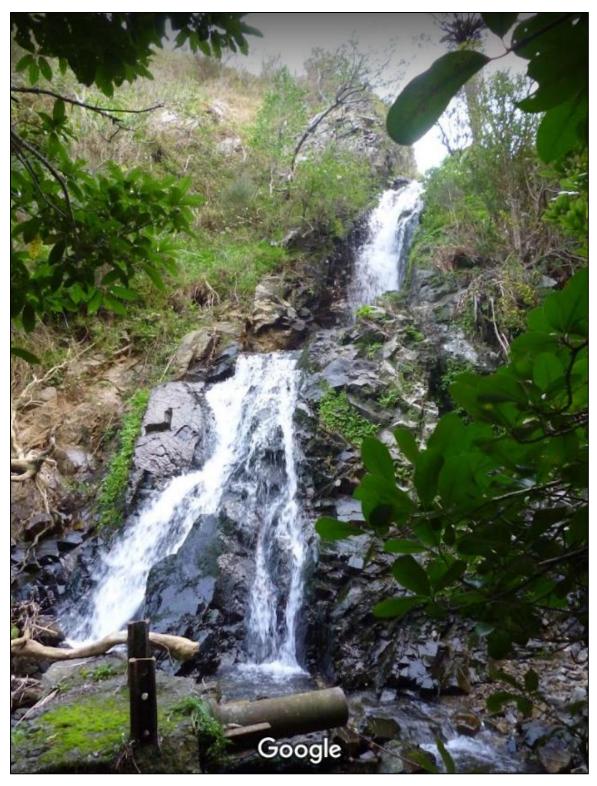
View of Tyers Stream culvert with new grill (Cadenhead, 2023).





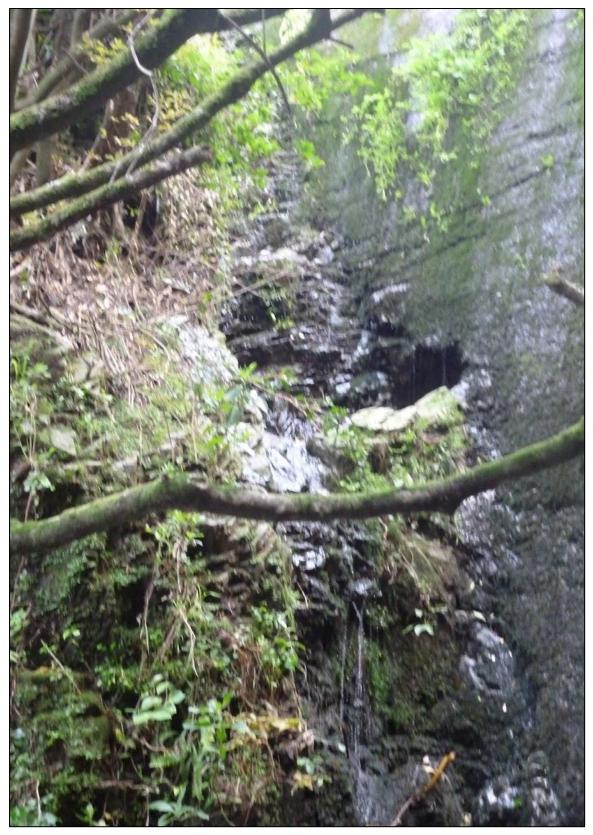
View of stream. Note on far left of image is stonework covered in a layer of concrete. During the nineteenth century, stone dams were sometimes covered in a layer of concrete for protection (Cadenhead, 2023; Greater Wellington Regional Council, 2007).





Note pipe work at bottom of waterfall (Cadenhead, 2023)s





View of Dam (Cadenhead, 2023).



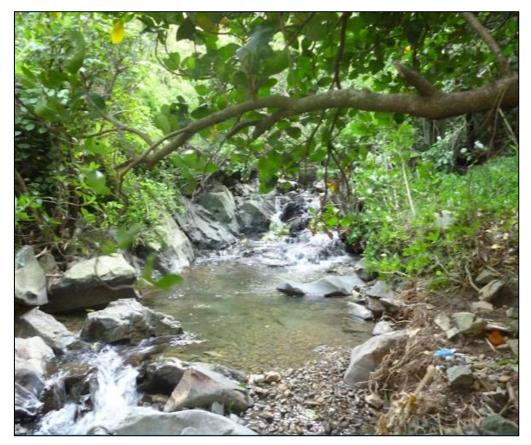


View of Stream (Cadenhead, 2023)



View of stream including old pipes (Cadenhead, 2023).





Tyers Stream (Cadenhead, 2023)



Tyers Stream (Environmental Protection Authority, 2022).



Appendix 4 Records of title

WN39C/276

RECORD OF TITLE DERIVED FROM LAND INFORMATION NEW ZEALAND FREEHOLD

Identifier WN39C/276

Land Registration District Wellington

Date Issued 14 March 1991

Prior References

WN23B/25

Type Fee Simple

Area 4272 square metres more or less

Legal Description Lot 4 Deposited Plan 58937

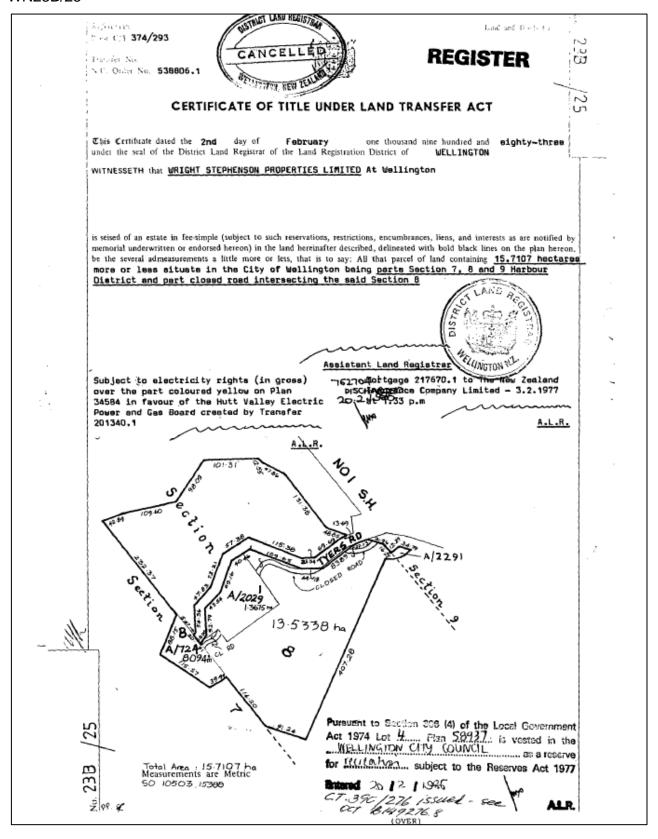
Purpose Recreation Reserve

Registered Owners
Wellington City Council

SUBJECT TO THE RESERVES ACT 1977



WN23B/25

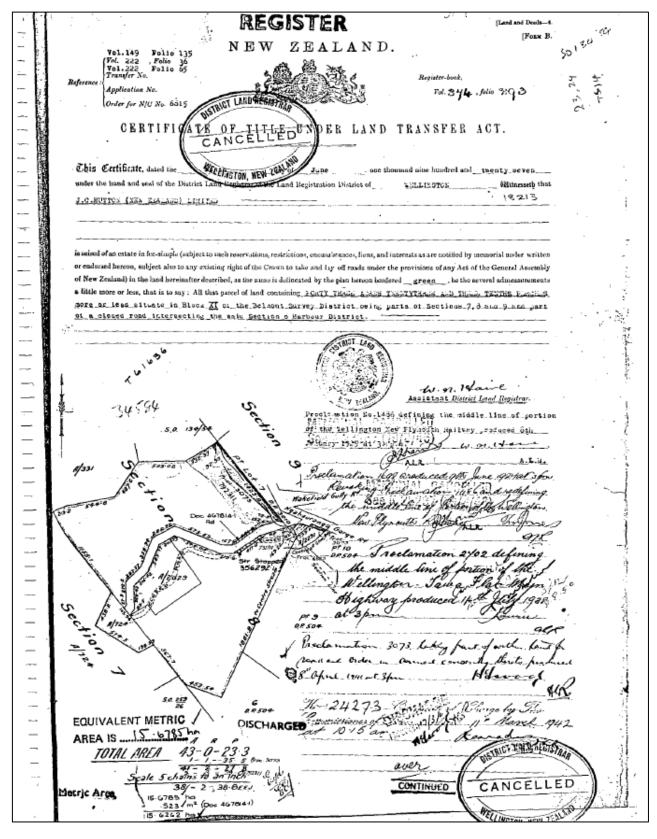




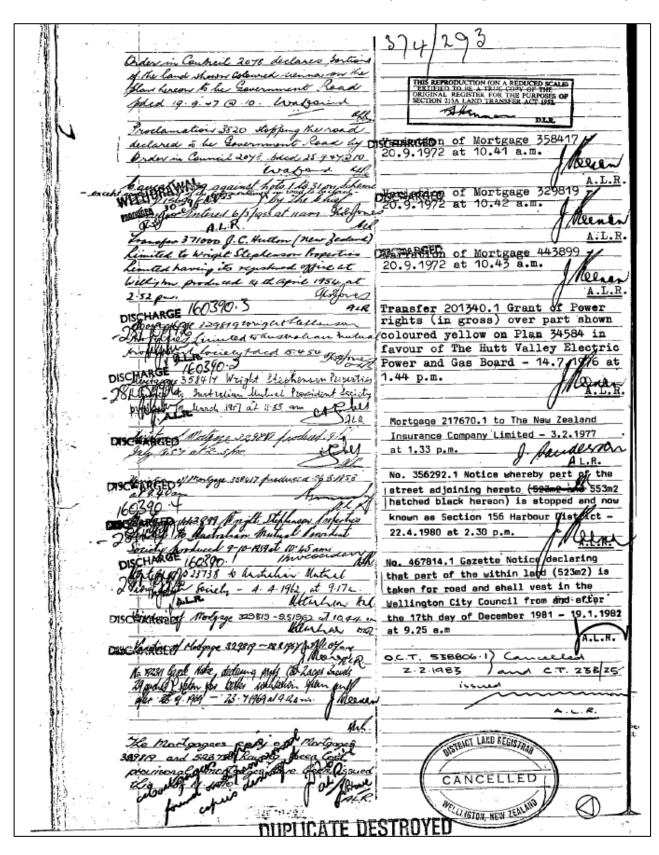
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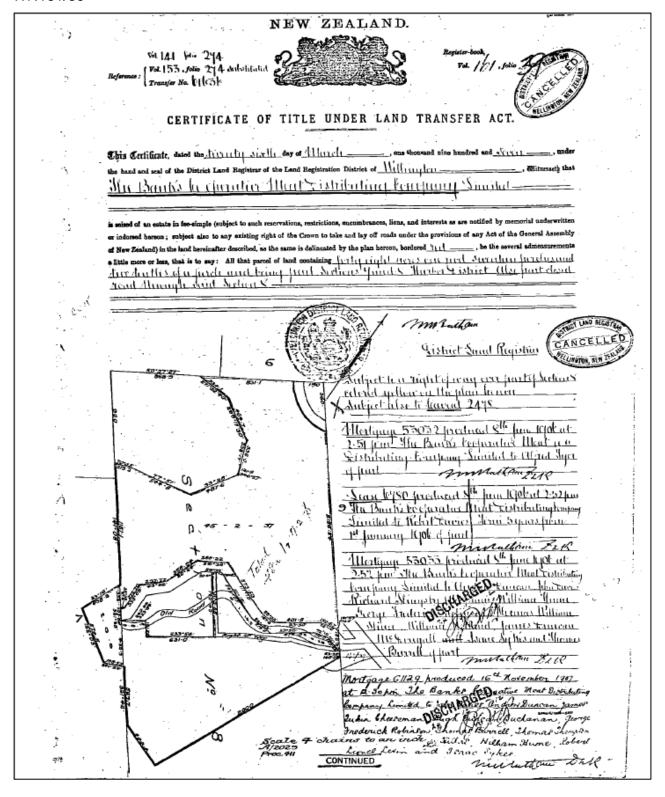


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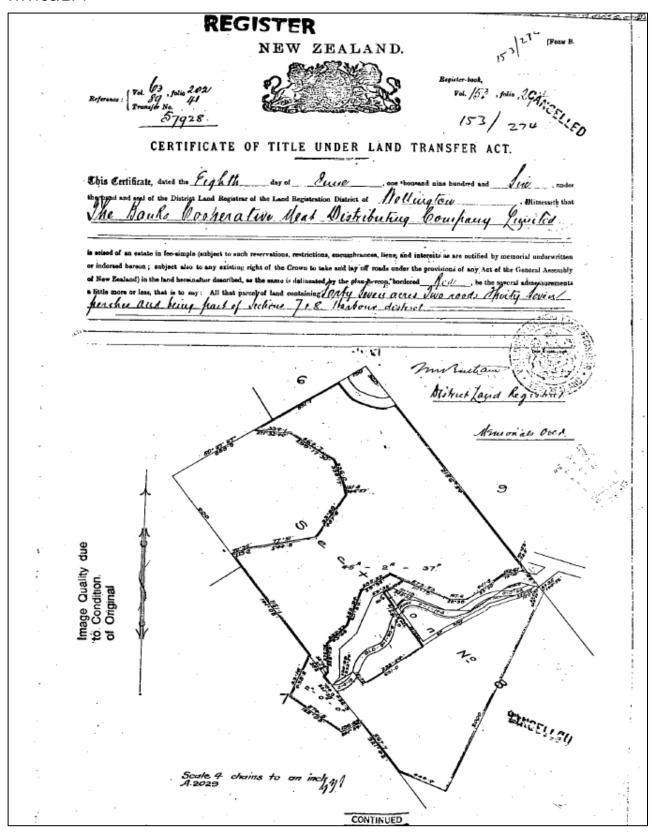






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| | NEW ZEALAND. |
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| | CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT. |
| V | This Certificate, dated the Australia day of March, one thousand nine hundred and Not under the band and seal of the District Land Registrar of the Land Registration District of Milituria being a Certificate in lieu of Grant, under Warrant of His Excellency the Governor, in exercise of the powers enabling him in thus behalf, Editorezeth that Office of Mahautanga Ollmanger |
| | is seized of an estate in fee-simple (subject to such reservations, restrictions, encumbrances, liens, and interests as are notified by memorial under-written or indorsed hereon; publicat also to any existing right of the Crown to take and lay off roads under any Act of the General Assembly of New Zealand) in the land hereinfilter described, as the same is defineated by the plan hereon, bordered head, be the several admonstraments a little more or less, which said land is in the said Warrant expressed to have been originally acquired by the land when as from the Machine that the day of Reserves, one thousand misses handred and free under that is to say: All that |
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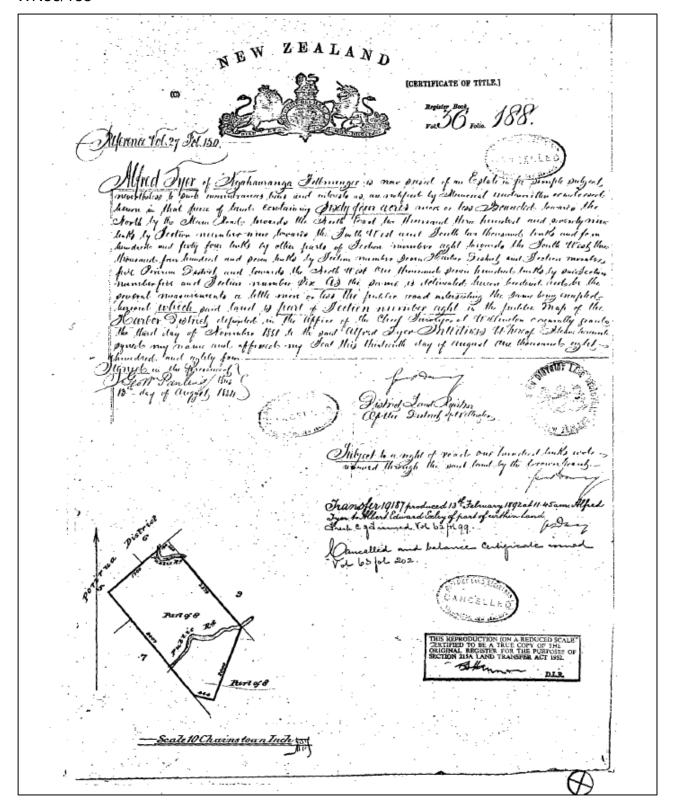


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| Afightenten 2592. CERTIFICATE OF TITLE UNDER LAND TRANSFER ACT. | |
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| This Certificate, dated the Secret day of Color one thousand eight numbered and ninety on under the hand and scal of the District Land Registrar of the Land Registration District of Holling to Witnesseth that | |
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| Governor and Commander in Chief in and over the Colony of New ZEALAND and its Dependencies, and Vice-Admit of the same, at | |
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